

Amendments to the Claims:

Please amend claims 2, 14, 22, 30, 32, 33 and 34 as follows.
The following listing of claims will replace all prior versions,
and listings, of claims in the application.

Listing of Claims:

Claim 1 (Withdrawn). An image processing apparatus
comprising:

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image input means for getting a plurality of image parts
dividing one composition such that the image parts have
5 overlapping areas, each having the same image of an object in the
overlapping area as in the overlapping area of the next image
part;

correction parameter setting means for setting a correction
parameter necessary to correct at least distortion of said
10 plurality of image parts generated in each overlap area or a
difference between the image parts, said correction parameter
setting means being allowed to be manually operated by a user to
set the correction parameter;

image correcting means for correcting at least one image
15 part of said plurality of image parts in accordance with said set

correction parameter to eliminate at least distortion of said plurality of image parts generated in each overlap area or the difference between the image parts;

image joining means for sequentially joining the plurality
20 of image parts corrected by said image correcting means in said overlap area to restore said one composition;

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image display means for displaying at least said plurality of image parts input by said image input means or said image parts corrected by said image correction means; and

25 optimal parameter setting means for determining, as an optimal value, the correction parameter set by said correction parameter setting means, when it is judged by the user from display by said image display means that correction is sufficiently performed by said image correcting means.

Claim 2 (Currently Amended). An image processing apparatus comprising:

image input means for inputting a plurality of images of one composition which are picked up under different exposure
5 conditions;

correction parameter calculating means for determining
correction parameters between the plurality of images based on
the plurality of images input from the image input means;

wherein the correction parameter calculating means

10 comprises:

image display means for displaying the plurality of
images input from the image input means;

correction parameter setting means for adjusting the
correction parameters determined by the correction parameter
15 calculating means, while differences in brightness between the
plurality of images displayed by the image display means are
being checked by a user; and

brightness correcting means for correcting the
brightness of ~~said~~ at least one image in accordance with the
20 correction parameters adjusted by the correction parameter
setting means; and

image synthesizing means for synthesizing the plurality of
images including said at least one image, the brightness of which
is corrected by the brightness correcting means.

Claim 3 (Cancelled).

Claim 4 (Cancelled).

Claim 5 (Withdrawn). The image processing apparatus according to claim 1 or 2, wherein said image correcting means corrects the image by changing the correction parameter in accordance with differences in image magnification between a plurality of images displayed by said image display means.

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Claim 6 (Cancelled).

Claim 7 (Withdrawn). The image processing apparatus according to claim 1 or 2, wherein said image correcting means corrects the image by changing the correction parameter in accordance with differences in color data between a plurality of images displayed by said image display means, and wherein said color data is at least one of hue, saturation, and intensity.

Claim 8 (Cancelled).

Claim 9 (Withdrawn). The image processing apparatus according to claim 1 or 2, wherein said image correction means corrects the image by changing the correction parameter in

accordance with peripheral reduction light of one image display
5 by said image display means or in accordance with differences in
peripheral reduction light between a plurality of images
displayed by said image display means.

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Claim 10 (Previously Presented). The image processing
apparatus according to claim 2, wherein the correction parameters
determined by the correction parameter calculating means are
exposure time ratios at which the plurality of images to be input
5 by the image input means are picked up, respectively, and the
correction parameter setting means has a function of displaying
an imaginary adjustment knob on a display screen of the image
display means such that each of the exposure time ratios is
adjustable by a user.

Claim 11 (Cancelled).

Claim 12 (Currently Amended). The image processing
apparatus according to claim 9, ~~wherein~~ further comprising
correction parameter storing means for storing one or a plurality
sets of said correction parameters used in correcting said image
5 in connection with the name of the imaging apparatus used to take

the image, and said correction parameter setting means selects a desired set of correction parameters from the correction parameters stored in said correction parameter storing means.

Claim 13 (Withdrawn). An image processing method comprising:

an image input step of getting a plurality of image parts dividing one composition such that the image parts have overlapping areas, each having the same image of an object in the overlapping area as in the overlapping area of the next image part;

a correction parameter setting step of setting a correction parameter necessary to correct at least image distortion or image difference occurring in the overlapping areas of each image part, said correction parameter setting step being allowed to be manually operated by a user to set the correction parameter;

an image correcting step of correcting at least one of said plurality of image parts in accordance with said correction parameters, thereby to correct distortion of images or image difference occurring in at least the overlapping area of each image part;

a composition restoring step of restoring said composition
by sequentially combining said plurality of image parts
corrected, one to another, with overlapping the same at
overlapping areas; and

an image displaying step for displaying at least said
plurality of image parts input or said plurality of image parts
corrected; and

an optimal parameter setting step for determining, as an
optimal value, the correction parameter set by said correction
parameter setting step, when it is judged by the user from
display during said image displaying step that correction is
sufficiently performed by said image correcting step.

Claim 14 (Currently Amended). An image processing method
comprising:

an image input step of inputting a plurality of images of
one composition which are picked up under different exposure
conditions;

a correction parameter calculating step of determining
correction parameters between the plurality of images based on
the plurality of images input during the image input step;

wherein the correction parameter calculating step comprises:

10 an image display step of displaying the plurality of
images input during the image input step;

 a correction parameter setting step of adjusting the
correction parameters determined during the correction parameter
calculating step, while differences in brightness between the
15 plurality of images displayed during the image display step are
being checked by a user;

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 a brightness correcting step of correcting the
brightness of ~~said~~ at least one image in accordance with the
correction parameters adjusted during the correction parameter
20 setting step; and

 an image synthesizing step of synthesizing the plurality of
images including said at least one image, the brightness of which
is corrected during the brightness correcting step.

Claim 15 (Cancelled).

Claim 16 (Cancelled).

Claim 17 (Withdrawn). The image processing method according
to claim 13 or 14, wherein said image correcting step is to
change the correction parameter in accordance with differences in

image magnification between a plurality of images displayed in
5 said image displaying step.

Claim 18 (Cancelled).

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Claim 19 (Withdrawn). The image processing method according
to claim 13 or 14, wherein said image correcting step is to is to
correct the image by changing the correction parameters in
accordance with peripheral reduction light of one image displayed
5 in said image displaying step or in accordance with differences
in peripheral reduction light between a plurality of images
displayed in said image displaying step.

Claim 20 (Previously Presented). The image processing
method according to claim 14, wherein said correction parameters
determined during the correction parameter calculating step are
exposure time ratios at which the plurality of images to be input
5 during the image input step are picked up, respectively, and the
correction parameter setting step displays an imaginary
adjustment knob on a display screen such that each of the
exposure time ratios is adjustable by a user.

Claim 21 (Withdrawn). A recording medium recording computer programs for restoring an image by combining a plurality of image parts divided from one composition, each image part having the same image of an object in an overlapping area, said recording
5 medium recording:

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an image inputting program for inputting said plurality of image parts;

a correction parameter setting program for setting correction parameters indispensable for correcting image
10 distortion or image difference occurring in at least the overlapping areas of each image part, said correction parameter setting program being allowed to be manually operated by a user to set the correction parameter;

an image correcting program for correcting at least one of
15 said plurality of image parts in accordance with said correction parameters, thereby to correct distortion of images or image difference occurring in at least the overlapping areas of each image part;

a composition restoring program for restoring said
20 composition by sequentially combining said plurality of image parts corrected, one to another, with overlapping the same at overlapping areas; and

an image displaying program for displaying said plurality of
images input, or at least one of said plurality of image parts
25 corrected; and

an optimal parameter setting program for determining, as an
optimal value, the correction parameter set by said correction
parameter setting program, when it is judged by the user from
display of said displaying program that correction is
30 sufficiently performed by said image correction program.

Claim 22 (Currently Amended). A recording medium recording
~~computer programs~~ a computer program for correcting a plurality
of images obtained by taking one composition with different
exposures, to provide an image having a desired brightness, said
5 recording medium comprising:

an image inputting program for inputting a plurality of
images of one composition which are picked up under different
exposure conditions;

a correction parameter calculating program for determining
10 correction parameters between the plurality of images based on
the plurality of images input from the image inputting program;
wherein the correction parameter calculating program
comprises:

15 an image display program for displaying the plurality
of images input from the image inputting program;

20 a correction parameter setting program for adjusting
the correction parameters determined by the correction parameter
calculating program, while differences in brightness between the
plurality of images displayed by the image display program are
being checked by a user;

25 a brightness correcting program for correcting the
brightness of ~~said~~ at least one image in accordance with the
correction parameters adjusted by the correction parameter
setting ~~means~~ program; and

an image synthesizing program for synthesizing the
plurality of images including said at least one image, the
brightness of which is corrected by the brightness correcting
~~means~~ program.

Claim 23 (Cancelled).

Claim 24 (Cancelled).

Claim 25 (Withdrawn). The recording medium according to
claim 21 or 22, wherein said image correcting program is designed

to correct the image by changing the correction parameter in
accordance with differences in image magnification between a
5 plurality of images displayed in accordance with said image
displaying program.

Claim 26 (Cancelled).

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Claim 27 (Withdrawn). The recording medium according to
claim 21 or 22, wherein said image correcting program is designed
to correct the image by changing the correction parameter in
accordance with peripheral reduction light of one image displayed
5 by using said image displaying program, or in accordance with
differences in peripheral reduction light between a plurality of
images displayed in said image displaying step.

Claim 28 (Previously Presented). The recording medium
according to claim 22, wherein said correction parameters
determined by the correction parameter calculating program are
exposure time ratios at which the plurality of images to be input
5 by the image inputting program are picked up, respectively, and
the correction parameter setting program has a function of
displaying an imaginary adjustment knob on a display screen

during the image display step such that each of the exposure time ratios is adjustable by a user.

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Claim 29 (Previously Presented). The image processing apparatus according to claim 2, wherein the correction parameters determined by the correction parameter calculating means are aperture ratios at which the plurality of images to be input by
5 the image input means are picked up, respectively, and the correction parameter setting means has a function of displaying an imaginary adjustment knob on a display screen of the image display means such that each of the aperture ratios is adjustable by a user.

Claim 30 (Currently Amended). An image processing apparatus comprising:

an image input device which inputs a plurality of images of one composition which are picked up under different exposure
5 conditions;

a correction parameter calculator which determines correction parameters between the plurality of images based on the plurality of images input from the image input device;

wherein the correction parameter calculator comprises:

10 an image display device which displays the plurality of
images input from the image input ~~means~~ device;

a correction parameter setting device which adjusts the
correction parameters determined by the correction parameter
calculator, while differences in brightness between the plurality
15 of images displayed by the image display device are being checked
by a user;

that a brightness corrector which corrects the brightness of
~~said~~ at least one image in accordance with the correction
parameters adjusted by the correction parameter setting device;

20 and

an image synthesizing device which synthesizes the
plurality of images including said at least one image, the
brightness of which is corrected by the brightness corrector.

Claim 31 (Previously Presented). The image processing
apparatus according to claim 30, wherein the correction
parameters determined by the correction parameter calculator are
exposure time ratios at which the plurality of images to be input
5 by the image input device are picked up, respectively, and the
correction parameter setting device has a function of displaying
an imaginary adjustment knob on a display screen of the image

display device such that each of the exposure time ratios is adjustable by a user.

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Claim 32 (Currently Amended). The image processing apparatus according to claim 30, wherein the correction parameters determined by the correction parameter calculator ~~means~~ are aperture ratios at which the plurality of images to be input by the image input device are picked up, respectively, and the correction parameter setting device has a function of displaying an imaginary adjustment knob on a display screen of the image display device such that each of the aperture ratios is adjustable by a user.

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Claim 33 (Currently Amended). The image processing ~~apparatus~~ method according to claim 14, wherein the correction parameters determined by the correction parameter calculating step are aperture ratios at which the plurality of images to be input during the image input step are picked up, respectively, and the correction parameter setting step has a function of displaying an imaginary adjustment knob on a display screen during the image display step such that each of the aperture ratios is adjustable by a user.

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Response dated October 20, 2004
Reply to Office Action of April 21, 2004

Claim 34 (Currently Amended). The ~~image processing~~
~~apparatus~~ recording medium according to claim 22, wherein the
correction parameters determined by the correction parameter
calculating program are aperture ratios at which the plurality of
5 images to be input by the image inputting program are picked up,
respectively, and the correction parameter setting program has a
function of displaying an imaginary adjustment knob on a display
screen such that each of the aperture ratios is adjustable by a
user.
